

"No public expenditure can be as rewarding as well directed expenditure on public health, because that is the expenditure which results most directly in the increase of both public efficiency and public happiness."—Prof. Elliott, Harvard University.

# ALBERTA PUBLIC HEALTH BULLETIN

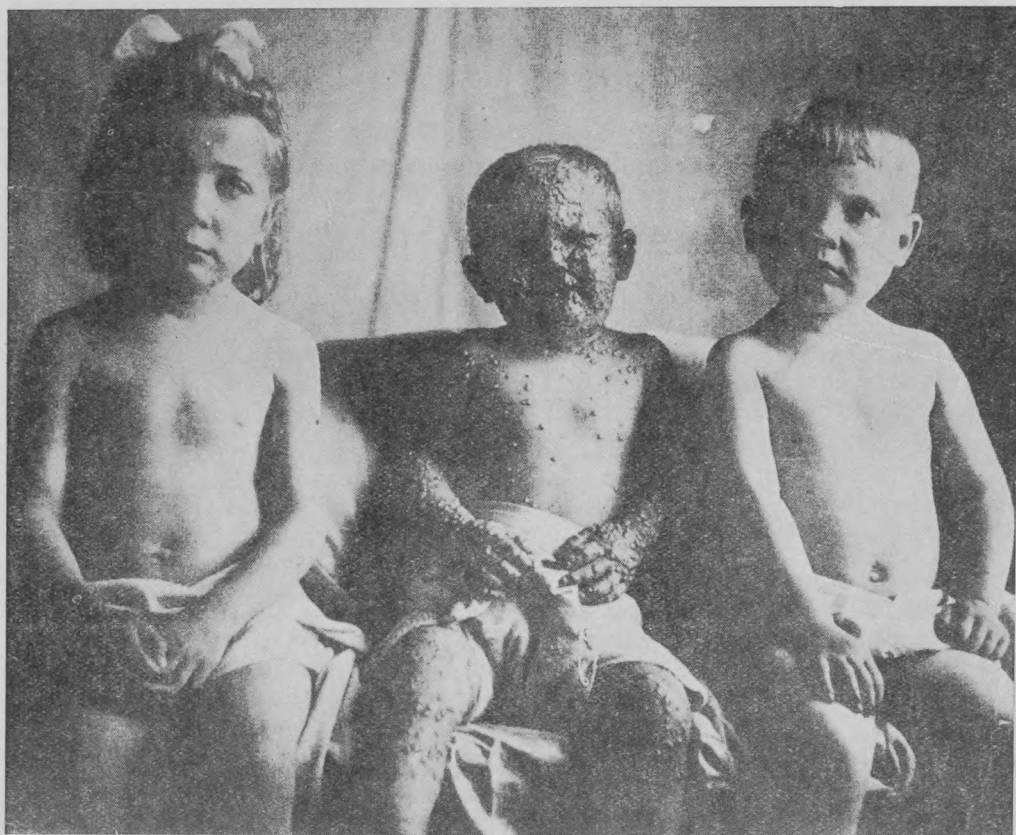
Issued by The  
PROVINCIAL DEPARTMENT OF PUBLIC HEALTH  
Malcolm R. Bow, B.A., M.D., C.M., D.P.H., Deputy Minister  
By Direction of  
HON. GEORGE HOADLEY, MINISTER OF HEALTH

---

EDMONTON, ALBERTA, MAY, 1931.

---

## Vaccination Prevents Smallpox



Three members of one family brought to a Hospital with their mother and father, who had Smallpox. The child in the center was not vaccinated, as it was considered too young. The other children were vaccinated one year before, and remained free of the disease, although living in the Smallpox wards for several weeks. (From "Acute Contagious Diseases," by Welsh and Schamberg.)

The Provincial Department of Health again brings to the attention of the public the fact that Smallpox is still a serious disease, having lost none of its ancient pestilential power in the unvaccinated, and that it is prevalent in some parts of the province. While it is not always prevalent in the province, the periodical case always presents the possibility of an epidemic where there is a large unvaccinated population.

The incidence of the disease in the province for the 5-year period, 1925-29, shows very clearly that there is still need for the greatest vigilance in regard to this, one of the greatest pests that have ever afflicted the human race. The figures for these years are as follows:

1925—	89 cases.	No deaths.
1926—	202 cases.	2 deaths.
1927—	481 cases.	3 deaths.
1928—	254 cases.	No deaths.
1929—	94 cases.	No deaths.

This Department has nothing new to say on the subject. The symptomology and treatment of this disease (as well as the method of complete immunization against it) have been clearly stated from time to time by various health agencies. Neither has it any appeal to make to the public other than to its common sense and regard for both its private and public welfare.

The difficulty of combating Smallpox is not one of presenting facts, but of arousing people from their apathetic attitude towards the disease. It has somehow become a more or less popular idea that there is no longer any reason to fear this disease. While there is not space in this bulletin to give even a summary of recent epidemics, it may be confidently stated that this idea is entirely erroneous. Epidemics of Smallpox in recent years, in many parts of the world, indicate very clearly the fact that it is still a scourge, and that it is only kept from assuming epidemic proportions more frequently by extensive vaccination.

Neither does the disease necessarily run a milder course with the passing of the years, as do other diseases. For while it is true that most recent epidemics have been of a mild type, there are some noteworthy exceptions. The two occurring in Ontario in 1923-1924 are typical of many others. In Chapleau during the winter of 1923-24, there were 63 cases and 32 deaths. In February, 1924, in the epidemic centering in Windsor, there appeared, from an apparently clear sky, one of the most virulent types of the disease that history records. Before this outbreak was brought under control (by vaccination) there were 67 cases and 32 deaths. The details of this outbreak are as follows:

	Cases	Deaths	Mortality
Never successfully vaccinated .....	45	32	71 %
Vaccinated successfully 12 to 65 years before .....	10	0	0
Vaccinated successfully in incubation period, i.e., came down with Smallpox and a taking vaccination .....	12	0	0
Totals .....	67	32	48 %

The following information is given with the hope that interest will be aroused in individuals, School Boards, Boards of Health and the various health organizations, sufficient to initiate and carry out a campaign that will effectively shut the door of the province against this ancient and inveterate foe.

**No Respector of Persons** Smallpox, unlike many other diseases, does not yield to ordinary sanitation. It defies the most modern and thorough sanitary engineering. Neither does it respect the healthy any more than it does the unhealthy. Vaccination is the only effective way of preventing the spread of infection.

**The Disease Described.** Smallpox is an acute contagious disease. Fever, headache, backache are characteristic symptoms in the beginning, usually accompanied by chills, nausea and vomiting.

Firm red pimples begin to appear on the face and hands and then develop on other parts of the body. These change into pustules which either dry up or discharge. The fluid which they discharge has a very disagreeable odor. The pimples cause pockmarks.

**How to Become Immune.** Immunity is secured by being vaccinated with in the first year of life, again in early school life, and again if there is an epidemic.

All records prove conclusively that the above procedure is one hundred per cent. effective. One vaccination is usually effective against a fatal attack, two in most cases against any attack, and three always. In the whole field of public health there is nothing so well established as the fact that vaccination prevents Smallpox.

**What Is Vaccine?** The vaccine is a virus taken under aseptic precautions from healthy calves and prepared under the most hygienic methods. The vaccine distributed by the Department is prepared by the Connaught Laboratories, at the University of Toronto. It is sealed in glass containers with every aseptic precaution, and is not exposed till the time of use at vaccination.

**Vaccination and Its Care.** Following vaccination a small vesicle or water blister appears at the site of vaccination. With present methods of doing vaccinations this vesicle may be no larger than a pea. In children, the development of the vesicle is accompanied by slight signs of fever, irritability and restlessness, and in some cases the glands under the arms are enlarged, and there is some inflammation around the site of the vaccination. Any local reaction soon disappears and by the 11th day the vesicle has dried up and by the 14th day a dry scab has formed. After about three weeks the scab falls off, leaving a small scar which, under modern methods of making a very small scarification in the beginning, is scarcely visible after a year or two.

Vaccination shields should not be used on any account, as they tend to bind the arm, increase the irritability and permit the accumulation of moisture around the site of the vaccination. The only protection required is a clean piece of gauze basted inside the sleeve of the garment worn next to the skin. This should be changed as often as necessary to keep it clean. Care should be taken to prevent the scab being knocked off or the arm being injured. With these precautions no one need have any fear of vaccination.

### POINTS TO REMEMBER

1. Vaccination is a certain protection against Smallpox.
2. Every person should be vaccinated at least once in infancy and again at about twelve years of age.
3. Vaccination is not harmful. No death or even disability has resulted from vaccination in modern times.
4. In case of the symptoms of the disease, report at once to the Nurse, Doctor, or the Board of Health.
5. Read some reputable book or pamphlet on Vaccination and Smallpox, such as "Smallpox and Vaccination," by Benjamin White, Ph.D., The Harvard University Press, Cambridge, Mass., U.S.A.  
Do not depend upon cranks, fanatics and ignorant people for your information upon this subject.
6. Smallpox vaccine is supplied free of charge by The Department of Public Health, Parliament Buildings, Edmonton, Alberta.
7. The Department of Health is at all times ready to give any information desired regarding infectious diseases.